Thus all of the process claims of Group II require the solutions of the Group I claims, so it not seen why the process claims 8-12 and 20-24 cannot also be examined with the elected group.

Further, the claims of Group III, namely, claims 13-16 drawn to a polyketone fiber, are either produced by the process of claim 8 (claim 13) or are the same fibers produced in claims 8 and 9 (claims 14-16). With respect to claim 13 as well as new claims 25-27, since these claims require the use of the polyketone solutions of claims 1-7, it is believed these claims should also be able to be considered with the elected group.

Regarding claims 14 and 15, these claims are directed to polyketone fibers having low content of remaining metals. As described in the specification, there has been no industrially practical process to obtain polyketone fiber. Melt-spinning of polyketone cannot produce polyketone fiber having satisfactory physical properties on an industrial scale, since polyketone tends to be cross-linked by heat. The process for producing polyketone fiber is, therefore, substantially limited to wet-spinning (See lines 5-14 on page 2 of the specification). Although there have been suggested wet-spinning of polyketone using organic solvents, such processes are not industrially practical due to the low solubility of polyketone to the organic solvents, the problem with safety and the difficulty of solvent recovery, etc. (line 15 on page 2 to line 17 on page 4 of the specification.

The present inventors found that polyketone is soluble in an aqueous solution containing specific salts, i.e., the polyketone solutions of claims 1-7. The process for producing the polyketone fiber using the solutions of claims 1-7 do not have the

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problems seen in melt-spinning and wet-spinning with organic solvents. The inventors also found that it is difficult to remove metal elements from the polyketone obtained using organic solvents. The production of polyketone fiber having low metal elements as set forth in claims 14 and 15 on an industrial scale is, therefore, achieved for the first time by employing the polyketone solutions of claims 1-7. Thus the polyketone fibers of claims 14 and 15, require the use of the solution according to claims 1-7.

Claim 16 relates to polyketone fiber having superior elasticity retention, namely, a storage elastic modulus at 180°C of 80 g/d or more in the measurement of dynamic viscoelasticity at a frequency of 110 Hz. The invention of claim 16 is based on the inventors' finding that polyketone fiber with low content of metal elements originating from catalyst or solvent has superior dimensional stability and elasticity retention at high temperatures, as well as physical properties such as high strength and high elasticity (line 23 on page 26 to line 28 on page 28). Examples 24-28 and Comparative Examples 1 and 2 in the present application illustrate this point. As mentioned above, the polyketone fiber having satisfactory properties could not be produced by melt-spinning of or wet-spinning with organic solvent of polyketone. The fiber having superior storage stability of claim 16 is, therefore, obtained for the first time by employing the polyketone solution of claims 1-7. Thus the polyketone fibers of claim 16 also require the use of the solution according to claims 1-7.

In summary, it is believed that the claims of Groups I-III, namely, claims 1-16, as well as new claims 20-27 all comprise a single inventive concept and should all be examined together.

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With respect to claims 17-19, applicants elect the species of claim 17 which is now set forth in claims 17 and 28 to avoid improper multiple dependency. It is understood that the claims will only have to be limited to the elected species in the event a generic claim is not found to be allowable.

Please grant any extensions of time required to enter this response and charge any additional required fees to our deposit account 06-0916.

Respectfully submitted,

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Dated: November 26, 2002

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APPENDIX TO AMENDMENT OF NOVEMBER 26, 2002

Version with Markings to Show Changes Made

Amendments to the Claims

3. (Amended) A solution according to claim 1 [or 2], wherein the anion portion of each of the zinc salt(s), calcium salt(s) and/or iron salt(s) is a halogen.

4. (Amended) A solution according to [any one of claims] claim 1 [to 3], wherein said polyketone comprises an alternating copolymer of carbon monoxide and one or more olefins.

8. (Amended) A process for producing polyketone fiber having an alternating copolymer of carbon monoxide and one or more olefins, wherein 90 wt% or more of said alternating copolymer comprises carbon monoxide units and olefin units, and the total content in said fiber of palladium, nickel and cobalt is 100 ppm or less, which comprises extruding a polyketone solution according to any one of claims 1 to 7 through a spinneret to obtain a fibrous material, removing a portion or the whole of the salt(s) used in the solvent from the fibrous material, and then stretching the fibrous material in a temperature range of 0 to 300°C to produce said fiber.

9. (Amended) A process for producing polyketone fiber having an alternating copolymer of carbon monoxide and one or more olefins, wherein 90 wt% or more of said alternating copolymer comprises carbon monoxide units and olefin units, and the total content in said fiber of palladium, nickel and cobalt is 100 ppm or less, which comprises extruding a polyketone solution according to any one of claims 1 to 7

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through a spinneret; passing the fibrous material obtained by the extrusion through a coagulation bath comprising 50 wt% or more of water; if necessary, washing the fibrous material with water or an aqueous solution of pH 4 or lower to reduce the total content in the fibrous material of at least one element selected for use from the group consisting of zinc, calcium and iron, to 10,000 ppm or less; drying the fibrous material at a temperature of 50°C or higher to remove a portion or the whole of the water from the fibrous material; and then stretching the fibrous material at a ratio of 3 or more at a temperature of 50°C or higher to produce said fiber.

11. (Amended) A [production] process according to [any one of claims] claim 9 [and 10], wherein the temperature of said coagulation bath and/or the temperature of said aqueous solution used for the washing if necessary are 50 to 95°C.

12. (Amended) A process for producing polyketone fiber according to [any one of claims] claim 9 [to 11], wherein the coagulation bath containing at least 1 ppm of the salt(s) used in the solvent for the polyketone and removed from the fibrous material, and a portion or the whole of the water or the aqueous solution having a pH of 4 or lower, which is used if necessary, are concentrated; the same salt(s) used in the solvent for the polyketone is freshly added to the concentrated aqueous solution if necessary; and the thus obtained aqueous solution is recycled to be reused as a solvent for the polyketone.

13. (Amended) A polyketone fiber produced by a production process according to [any one of claims] claim 8 [to 12].

14. (Amended) A polyketone fiber comprising an alternating copolymer of carbon monoxide and one or more olefins, wherein 90 wt% or more of said alternating

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copolymer comprises carbon monoxide units and olefin units, and the total content in said fiber of [at least one element selected for use from the group consisting of] palladium, nickel and cobalt is 100 ppm or less.

17. (Amended) A tire cord characterized by using a polyketone fiber according to [any one of claims] claim 13 [to 16] in a proportion of at least 50 wt%.

18. (Amended) A fiber-reinforced composite material wherein 1 wt% or more of fibers used is a polyketone fiber according to [any one of claims] claim 13 [to 16].

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